





**Grade 5 Math: Weeks 7-12 October 1- November 9
2012-2013**

Standards	*	Lessons	Teacher Notes
Standards marked with Red Keys are priority standards.			
 5.NBT.5 - Fluently multiply multi-digit whole numbers using the standard algorithm. Learning Targets: I can fluently multiply multi-digit whole numbers using the standard algorithm.	★ ►	To address the KCAS Standards, the following should be included in instruction: Investigations Unit 7 <ul style="list-style-type: none"> 3.1-3.7 4.1-4.7 Ten Minute Math: <ul style="list-style-type: none"> ✓ <i>Estimation and Number Sense</i> Unit 2 <ul style="list-style-type: none"> 1.2-1.7 2.1-2.4, 2.5A Ten Minute Math: <ul style="list-style-type: none"> ✓ <i>Estimation and Number Sense</i> Gap Lesson Links (5.MD.3): Facilitate a math workshop using: <ul style="list-style-type: none"> ✓ Exploring Volume ✓ Building Rectangular Prisms with a Given Volume ✓ Ordering Rectangular Prisms by Volume Vocabulary: standard algorithm, quotients, dividends, divisors, properties of operations, equations, rectangular arrays, area models, volume, attribute, solid figures, unit cube, cubic unit, cubic cm, cubic in, cubic ft, improvised units, right rectangular prism, length, width, height, base, additive http://www.amathsdictionaryforkids.com/	KCAS Note:, 5.NBT.5 & 5.NBT.6 – Ten Minute Math(TMM) - Estimation and Number Sense - Use this opportunity to have students explain patterns that occur when multiplying by 10s. After students estimate products and quotients, have them check the accuracy of their estimations by finding the actual products using their strategies.
 5.NBT.6 - Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. Learning Targets: I can explain division calculations using equations.	★ ►		
 5.MD.3 - Recognize volume as an attribute of solid figures and understand concepts of volume measurement. 5.MD.3a - A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. 5.MD.3b - A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units. Learning Targets: I can use volume as one characteristic to describe a solid figure. I can explain different ways volume can be measured. I can identify a unit cube and explain how it can be used to measure volume. I can explain the relationship between the number of cubes it takes to fill a solid figure and the volume of that figure.	★ ►		
 5.MD.4 - Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. Learning Targets: I can measure volume in cubic in, cubic cm, cubic ft, and improvised units by counting cubes.	★ ►		

*Standard Progression/Investigations Alignment Strength



5.MD.5 - Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

5.MD.5a - Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.

5.MD.5b - Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.

5.MD.5c - Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Learning Targets:

I can explain how volume relates to multiplication and addition. I can solve real world problems involving volume.

I can find the volume of a right rectangular prism by packing it with cubes.

I can explain why finding the volume by packing a figure with unit cubes is the same as the volume found by multiplying the edges lengths or by multiplying the height by the area of the base.

I can apply the formulas $V = l \times w \times h$ and $V = B \times h$ to find the volume of a right rectangular prism in the context of real world problems.

I can solve real world problems by decomposing a solid figure into two right rectangular prisms and adding their volumes together.



Formative Assessment Opportunity

5.NBT.5

5.NBT.6

5.MD.3

5.MD.3a

5.MD.3b

5.MD.4

5.MD.5

5.MD.5a

5.MD.5b

5.MD.5c

Spiral Review

5.OA.1

5.OA.2

5.OA.3

5.NBT.1

5.NBT.5

5.NBT.6

5.G.1